IC 2001-1 TO AFMAN 32-4005, PERSONNEL PROTECTION AND ATTACK ACTIONS

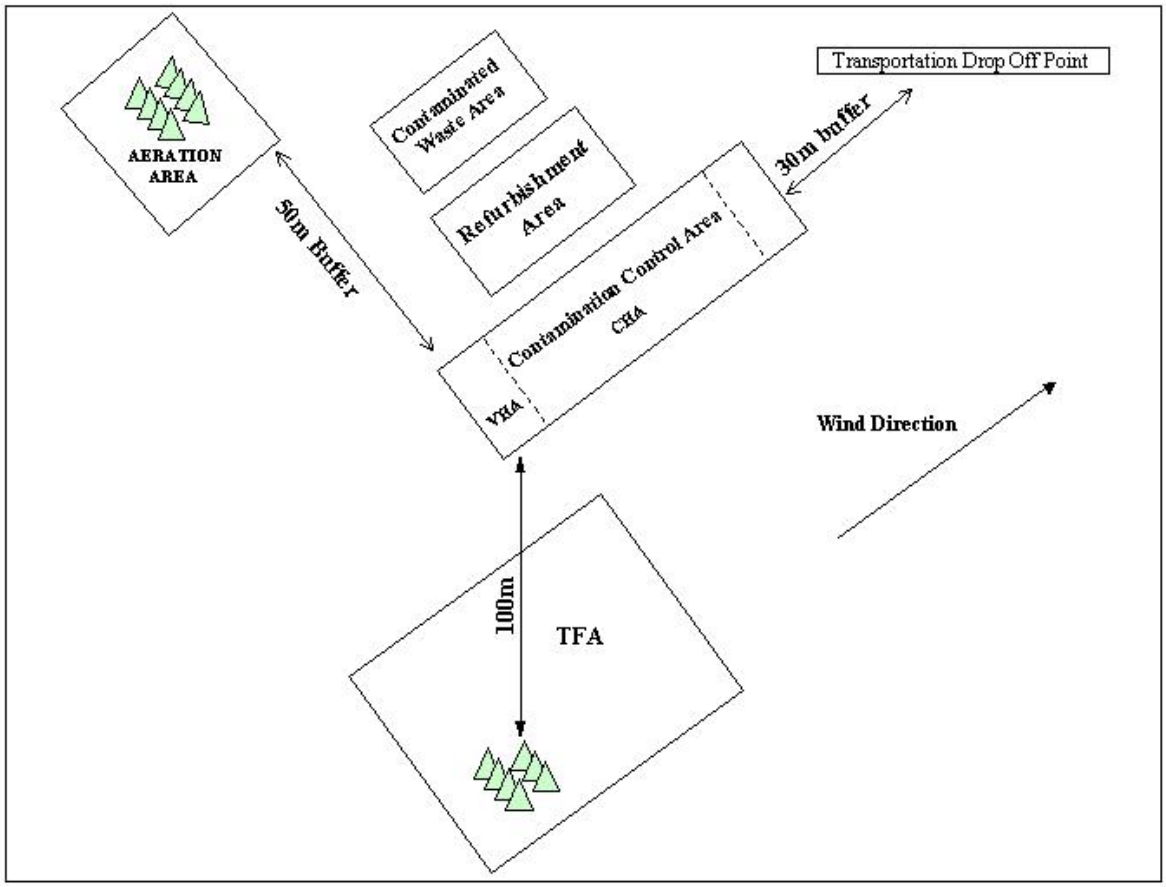
30 OCTOBER 2001

SUMMARY OF REVISIONS

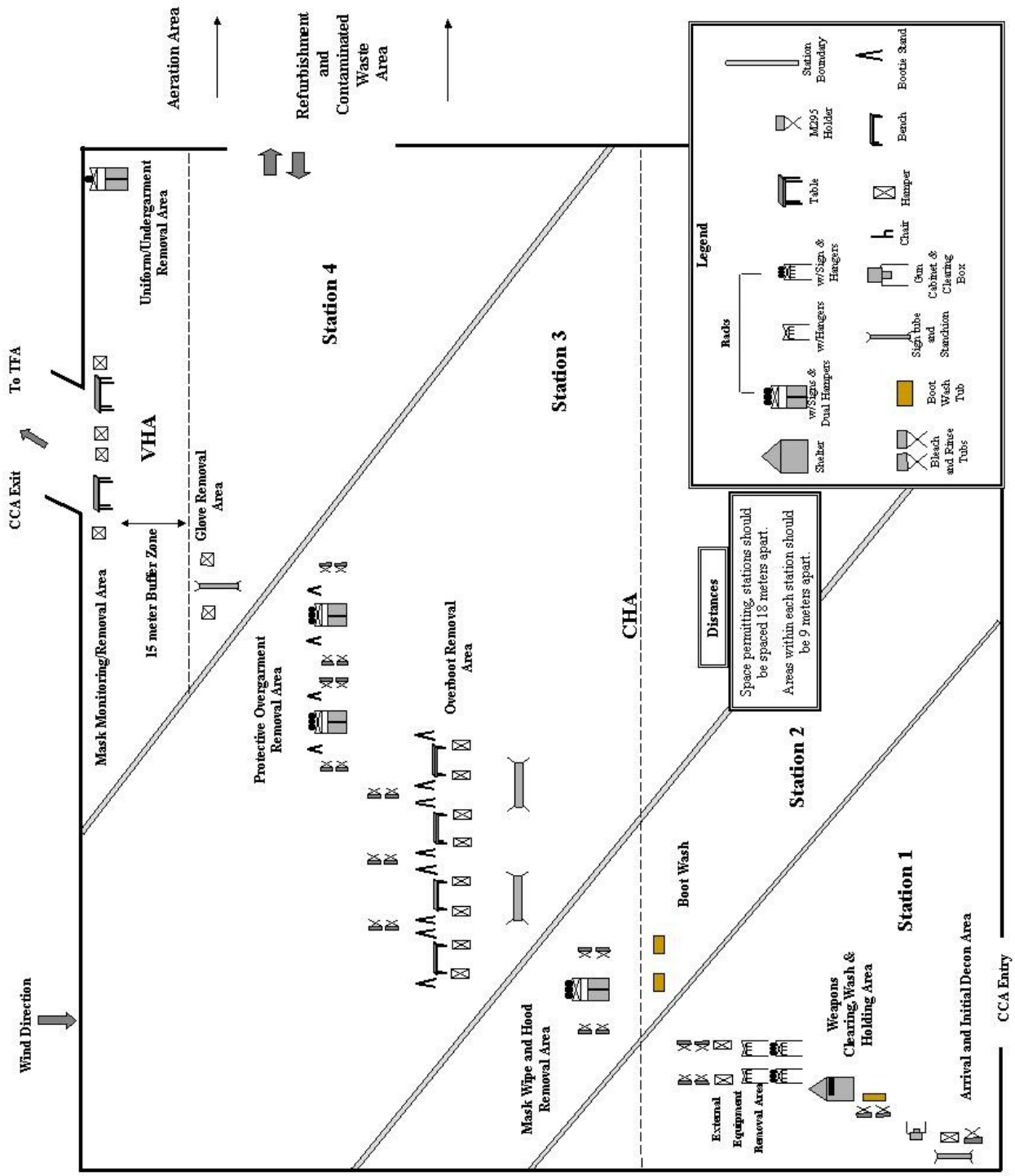
This interim change provides guidance for the Air Force Contamination Control Area (CCA) processing for the Battle Dress Overgarment (BDO), Chemical Protective Overgarment (CPO), Joint Fire Fighter Integrated Response Ensemble (J-FIRE) and the Explosive Ordnance Disposal (EOD) Level A Suit. The Contaminant Air Processing System (CAPS) is the Air Force standardized CCA processing system and will be used to the maximum extent possible. However, not possessing the CAPS will not preclude implementing Air Force standardized processing procedures. It also includes mission critical equipment (MCE) refurbishment procedures. A ★ indicates revisions from the previous edition.

★2.5. Site Components. Each CCA must have an entrance, Contact Hazard Area (CHA), Vapor Hazard Area (VHA), and an airlock/transition point between the VHA and Toxic Free Area (TFA). The CCA/TFA complex is composed of the following sub-elements, each connected in some way and can only be successfully accomplished through cohesive, integrated operations. See Figures 2.3 and 2.4. for an example layout of the CCA site components

★Figure 2.3. Example of a Site Components Layout.



★ **Figure 2.4. Example of a Contamination Control Area Layout.**



★2.5.2. CCA Entrance. The entrance to the CCA includes the following areas: Arrival and Initial Decontamination Area, Weapons Clearing, Wash & Holding Area, and the External Equipment Removal Area. Use this area to:

★2.5.2.1. Perform initial decontamination of yourself and your buddy prior to entering the Contact Hazard Area. See Table A2.9 for CCA processing procedures.

★2.5.2.2. Inform the processees of the sequence of events they will experience and any emergency response procedures.

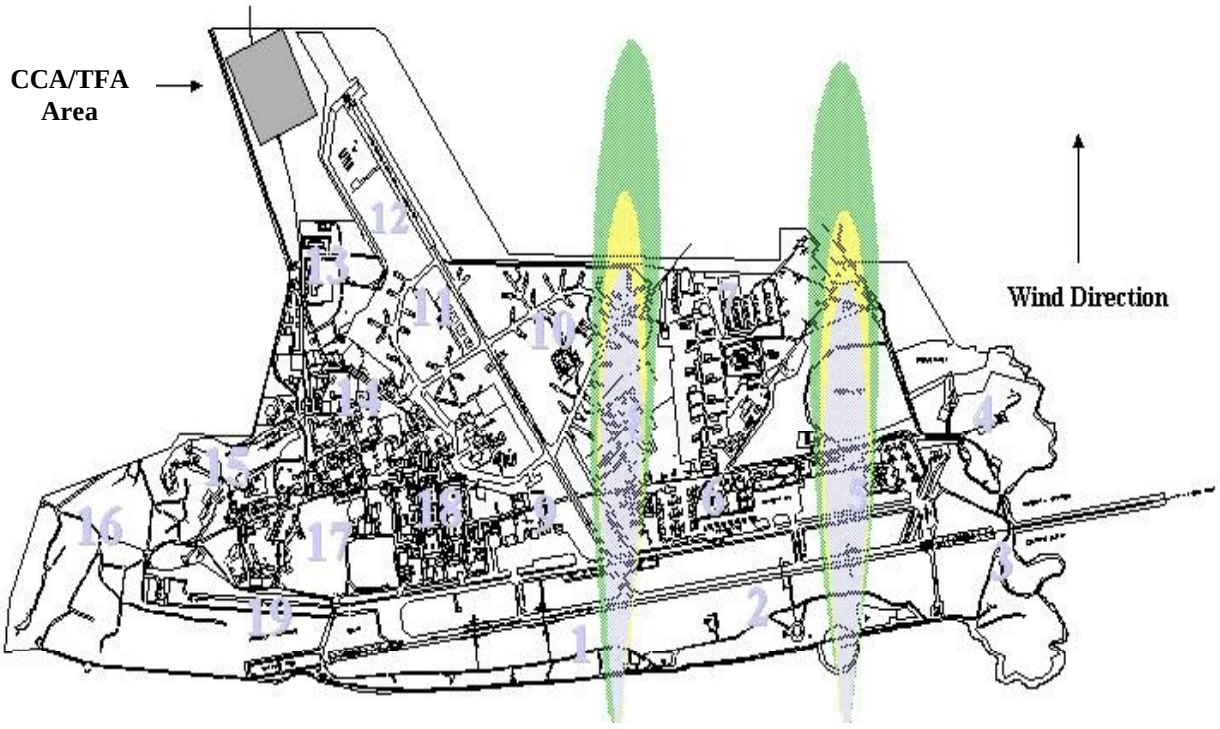
★2.5.2.3. Provide a covered area for rest and shade while waiting to process.

★2.5.2.4. Allow for turn in of weapons and the removal of external equipment worn other than the overgarment. i.e. Helmet, Vest (aircrew), Web Gear, Mask Carrier, Flak Vest, and Cold/Wet Weather Gear. Most of this equipment cannot be decontaminated to safe levels due to material composition. Equipment will be marked with individual's rank, name, and duty position for reissue to the same individual.

★2.5.7. Mission Critical Equipment (MCE) Refurbishment Area. The purpose of the refurbishment area is to decontaminate MCE and return it to the warfighter as quickly as possible. This area includes refurbishment of groundcrew, firefighter and EOD equipment. Refer to Table A2.13 for MCE refurbishment procedures. To prevent bottlenecks during this process, this function should have dedicated personnel when the CCA is fully operational. Regardless of whether it is a single activity or several line-by-line activities, the people will require large supplies of plastic bags, M8 paper, M291/M295 decontamination kits, sponges and bleach. The refurbishment area should be located outside the CCA processing lines. See Figure 2.3. for an example of the Refurbishment Area location and Figure A2.1 for the Refurbishment Station layout. The refurbishment duties are split between the Contact Hazard Area and the Vapor Hazard Area. Ensure adequate space, dedicated personnel, and supplies are available for this tasking.

★2.6. Site Selection. The most important step in selecting a suitable location for the installation CCA/TFA complex(s) sterns from a comprehensive vulnerability assessment. See Figure 2.5. for an example of where to establish the CCA in relation to the chemical deposition. The next consideration is knowing how large of an area will be needed. There are two main directions an installation may take.

★Figure 2.5. CCA Site Selection



★2.6.4.1. The first variable is the processing requirement. Once a processing line is established and people are moving through it (i.e., as one person leaves a station another person steps up), a relatively smooth flow will begin to take place.

★2.6.4.2.2. The CCA processing lines will take a large amount of space in order to optimize processing and force protection ideals. Spread the lines out (distance between processing stations) as far as reasonably possible. If space permits stations should be spaced approximately 18 meters apart and areas within each station should be 9 meters apart. Establish the lines in an angular and staggered fashion as opposed to a straight-line concept. The angle of the line should be a 20-degree angular configuration. Using this method, the concentration of "trailing" vapor hazards washing over people downwind of each processing station will be significantly reduced. See Figure 2.4. for the example of a CCA Layout.

★2.6.4.2.5. Once monitored personnel remove their mask and proceed to the TFA. The further the better, but at least 25 meters is recommended from the end of the VHA to the TFA. See Figure 2.4.

★ 2.7.1. Decontaminants. Liquid solution (5% chlorine solution) is preferred for most areas within the CCA. Normal household bleach is made at the 5% chlorine level. Do not use a 5% chlorine solution to decontaminate skin. Chlorine must be reduced to 0.5% for skin decontamination and must not be placed in open wounds. Standard decontamination kits (M291and M295) will also be used as appropriate for the task. The liquid chlorine mixture is placed in shuffle boxes for footwear decontamination and in troughs for glove decontamination steps. The amount needed for sustainment is based upon a number of variables, such as the type of protective ensemble the individual is wearing, number of personnel processing and flowrate. The CCA attendants will ensure the shuffle boxes and hand troughs are initially filled and checked periodically for refilling as necessary. For planning purposes; the initial CCA start-up quantity using the groundcrew version CAPS is 73 gallons of bleach at 5% concentration and 46 gallons of water. See Figure 2.4 for CCA layout. The consumption rate to support 400 personnel is calculated at approximately 60 gallons of bleach (5% percent concentration) for BDO processing and 144 gallons for CPO processing; an average of 12 gallon of water was used for both processes. Consider contacting Civil Engineering Utilities personnel to create the 5% solutions required in order to reduce contract costs and airlift/storage requirements. Caution: shuffle pits become extremely slippery when filled with chlorine bleach. Look for solutions to the problem in advance such as laying terry cloth towels in the bottom of the pit to increase friction between overboots and the shuffle pit.

★2.8.2. CCA Assistants. CCA assistants are shelterees selected to help operate the CCA as an additional duty when not performing mission essential duties. They perform assigned CCA support tasks for the CCA supervisor. At fixed sites locations the attendants can be identified through the installation READY program and deployed forces.

★2.8.2.1. CCA Entrance. Provide an assistant in the holding area who can answer questions concerning the CCA/TFA, collect classified material and direct people to the appropriate processing line, thereby minimizing bottlenecks. Also provide an individual for weapons clearing/storage operations.

★2.8.2.2. CHA Staffing. Minimum staffing, per shift, should be:
Note: The minimum staffing requirements listed below are based upon the complete setup of the CCA layout in Figure 2.4. Manning may fluctuate based upon the setup.

★2.8.2.2.1. Four people to operate and handle suit transport to and from the aeration area.

★2.8.2.2.2. One person to transport contaminated waste to the disposal area. (equipment operator preferably).

★2.8.2.2.3. One person per processing line at the Mask Wipe and Hood Removal Area.

★2.8.2.2.4. One person per two or three processing lines to assist personnel as necessary prior to their reaching the VHA.

★2.8.2.3. VHA Staffing. Minimum staffing, per shift, should be:

★2.8.2.3.1. Two to three personnel are necessary to monitor personnel at the BDU removal point for potential contamination. These personnel could also be utilized to monitor the air at the mask removal point.

★2.8.2.3.2. Two people to operate and handle clothing transport to and from the aeration area.

★2.8.2.3.3. Four personnel are necessary for mask refurbishment operations. See A2.8 for MCE refurbishment procedures.

★Attachment 1, ***References***

ADD

Contamination Control Area Phase 2 - Sustainment Exercise Operational Support Study

Contamination Control Area Phase III Air Force Specialty- Specific Processing

★ Attachment 1, ***Acronyms and Abbreviations***

ADD

MCE – Mission Critical Equipment

★**A2.8. Individual Protective Equipment Disposition.** Process equipment contaminated with vapor/liquid/solid chemical warfare agents as described below and using Table A2.13. for refurbishment of mission critical equipment. Coordinated base planning is necessary to identify decontamination facilities and contaminated waste disposal areas, and to develop operating procedures. Avoid extensive decontamination, because it is labor and resource intensive and not always effective.

★A2.8.1. The overall decontamination method for the BDO is aeration. However, if the overgarment (BDO/CPO) is initially decontaminated soon after contamination fall (within 15 minutes) with the M291/M295 Decontamination Kit, the amount of chemical warfare agent absorbed by the OG could be greatly reduced. Furthermore, decontaminating with the M291/M295 will enhance the protection capability afforded by the OG. Although the BDOs may present a vapor hazard, they may have to be reused if OG stocks are depleted. Wearers of previously contaminated BDOs should be observed for any indication of chemical-biological agent exposure. At the present time CPOs cannot be reconstituted.

★A2.8.2. Aerate BDOs outside the TFA and CCA boundaries. The area selected should provide protection from additional liquid contamination and a means of hanging the OG for aeration (racks are provided with the CAPS or the clothesline method is adequate). Special consideration is needed in open air CCAs to ensure that contaminated BDOs are aerated away from the TFA and mask removal point. Splinter protection is desirable. Aeration time depends on the temperature, amount and agent type, humidity, and airflow. To ensure aeration time is tracked, attach a tag, tape, etc to each BDO with the date and start time of aeration.

★A2.8.2.1. Special consideration should be made to whether or not the BDOs were liquid/solid or vapor contaminated. Separate vapor from liquid contaminated suits and only reuse the liquid contaminated suits as a last resort.

★A2.8.2.2. BDOs contaminated with VX may take weeks to decontaminate to acceptable levels, and is therefore aeration is not considered a viable option.

★A2.8.2.3. Specific aeration times for all variables do not exist. For most agents, at least 72 hours at temperatures above 60 degrees should be sufficient to prevent a contact hazard. However, after one hour of aeration, contamination levels are significantly reduced and may no longer present a transfer hazard. For monitoring purposes, wait 24 hours before initially monitoring aerated suits with the CAM.

★A2.8.2.4. Even though the BDO has been aerated, its mission effectiveness may have been degraded by the previous chemical agent exposure.

★A2.8.3. Ensure sufficient OG's are available at the CCA to support extended mission operations. Deplete new stocks before reusing previously contaminated BDOs.

★A2.8.4. Monitor previously contaminated BDOs with the CAM before removing them from the aeration area. Example method: Place the suit into an enclosed container, i.e. plastic bag to concentrate the vapors and then perform CAM check. CAM must read 0 bars to reuse suits. Inform personnel being issued the previously contaminated suits that they were contaminated and that they should watch closely for any signs of CW agent exposure.

★A2.8.5. Protective masks with liquid/solid contamination on the exterior surfaces, that are otherwise serviceable, will be serviced for reuse. Replace the hood, eyelens, outserts, and inlet valve caps (M17 series mask), when the mask is serviced. Change filter or canister elements according to technical order guidance. Discard masks with contamination on the interior surfaces.

★A2.8.6. Groundcrew Protective gloves, cotton inserts, footwear covers, and hoods contaminated with liquid agents are discarded. Certain EOD and Fire equipment are refurbished for reuse. See Table A2.13 for MCE refurbishment procedures.

★A2.8.7. Retain all other equipment, not addressed above for reuse, if it does not present a hazard. If decontamination is necessary, follow the procedures in T.O. 11C15-1-3.

★ **A2.10. CCA Supervisor and Attendant Guidelines.** The following information is provided to help the CCA supervisor and assistants perform their duties. They are especially important to the CCA assistants because they are not predesignated and trained. It may be necessary for one person to perform the tasks in more than one area and it may be possible to divide the tasks in a single area between several personnel. You may have to modify the information to add CCA-specific designs, equipment, supplies, and available manpower to fit your mission needs. If staffing allows, it's a good idea to have an assistant located in the holding area who can answer questions

concerning the procedures and direct people to the appropriate processing line, thereby equalizing the flow of personnel and minimizing bottle necks.

★ A2.10.1. CCA Supervisor Actions. Use Table A2.7. for the CCA supervisor's actions.

★ Table A2.7. CCA Supervisor's Actions.

CCA SUPERVISOR'S ACTIONS
1. Coordinate with the shelter supervisor or NBC Control Center for required assistants. a. Brief assistants and provide them with checklists. b. Set work, rest, and replacement cycles for assistants c. Supervise assistants.
2. Set up the CCA and post instructions. a. As personnel leave the transportation point, they should be directed (either by signs or attendant) to the contamination control area. Monitor and prompt personnel processing to: - Follow all instructions carefully. - Touch only the outside of clothing. b. Ensure decontamination kits are placed throughout the line. Restock if necessary. One M295 per individual processing is the minimum required at the Arrival and Initial Decon Area. c. Ensure all footwear shuffle boxes are filled with a 5% chlorine solution. (Household bleach). Note: The boxes should be filled to the point that the solution covers the bottoms and sides of the overboots but not to the point that it rises well up into the OG pant leg area. Refill as necessary d. Ensure all glove wash troughs are filled with the 5% chlorine solution and the rinse troughs are filled with water. Refill as necessary. e. Ensure benches are available to facilitate footwear cover removal f. Ensure barrels/hampers and liners are at each station for discarded clothing and equipment. Empty with they become full. g. Determine the location of areas designated for contaminated waste and trash disposal, OG aeration, and other IPE decontamination. h. Ensure equipment and decontaminants are available to decontaminate the CCA.
3. Coordinate CCA restocking with the shelter supervisor.
4. Establish a clean egress route and post instructions.
5. Maintain a steady processing flow.
6. Clean and refurbish the lines regularly i.e., remove trash, empty OG hampers, refill chlorine.

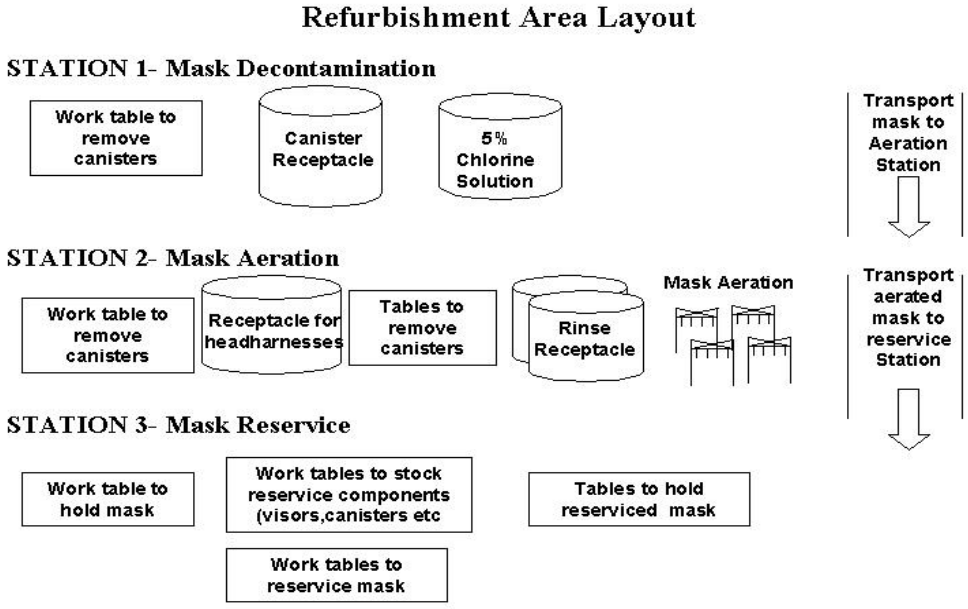
7. Decontaminate and refurbish the CCA items regularly.
8. **Refurbishment Area** - Ensure work space, spare mask parts, hoods, cloths, decontamination solutions, sponges, water, M291/M295 decontamination kits are available for cleaning and servicing masks. Restock supplies as necessary - Ensure containers and liners are available for removed items. - Ensure an overgarment and duty uniform aeration area is designated.
9. If there are instances where personnel must doff their underclothing, ensure the mask and clothing are removed from the hampers or airlock regularly.

★ **Table A2.8. CCA Assistant's Actions.**

CCA ATTENDANT'S ACTIONS
1. Keep decontaminant containers filled with 5% chlorine solution.
2. Collect, bag, and dispose of contaminated rubber IPE, as required.
3. Collect bag, and process classified material throughout the line, if required.
4. Collect and transport mission critical equipment to the Refurbishment Area.
5. Retrieve and store decontaminated IPE when needed.
6. Coordinate with the shelter supervisor to restock the CHA supplies.
7. Clean, monitor, and decontaminate the CHA; remove trash and contaminated items as necessary.
8. Pick up deposited masks from the Mask Monitoring/ Removal Area and transfer them to the Refurbishment Area. Once the mask are refurbished transport to the TFA.
9. Refurbish Mission Critical Equipment (MCE) See Table A2.13
10. Transport aerated and refurbished MCE to the TFA.
11. Collect, separate, and stow duty uniforms.
12. Dispose of glove inserts and underwear.

ADD Figure A2.1 After Table A2.8

★ **Figure A2.1. Protective Mask Refurbishment Area Layout**



★ **A211. CCA Signs.** The CCA processing signs may be downloaded from HQ AFCESA website at www.afcesa.af.mil. The signs are displayed throughout the CCA to guide personnel through the process of doffing and donning their IPE. The signs are based on the premise that individuals have been trained in CCA processing procedures in Table A2.9. Processing signs may be enhanced by including dual language, if required, and developing graphics and illustrations depicting processing procedures. Develop Weapons Clearing and Turn In signs according to AFI 31-207, *Arming and Use of Force.*

★**Table A2.9 CCA Processing Procedures**

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
STATION 1					
Arrival and Initial Decontamination Area					
1. Split into two person "buddy" teams. **Note: Try to team with an individual wearing the same protective overgarment.**	*	*	*	*	
2. Disconnect Velcro for hose/canister and allow to hang freely.			*		
WARNING!! **Using two fingers apply pressure to the mask front voicemitter and to the beard of the JFIRE to hold the mask firmly in place and prevent loss of mask seal integrity.**					
3. Thoroughly decontaminate yourself and all exterior equipment, including your weapon, using the M295 decontamination kits provided. Buddies should assist each other in hard to reach areas. Special interest should be given to gloves, hood/mask, and filter canisters.	*	*	*		
4. Discard used M295 decon kits into the trash hamper.	*	*	*		
5. EOD buddy teams spray the 5% chlorine solution, using the multipurpose sprayer (pump pressurized) to all exposed areas of the Level A Suit.				*	
6. Proceed to the **Weapons Clearing, Wash and Holding Area.**	*	*	*	*	
Weapons Clearing, Wash and Holding Area					*
1. Complete Weapons Clearing/Turn In (If required) prior to decontaminating gloves and overboots.	*	*	*	*	
2. Step into Boot Wash Tray.	*	*	*	*	
3. Wash Gloves in Decon Tub.	*	*	*	*	
4. Rinse Gloves in Rinse Tub.	*	*	*	*	
5. If a holding area is not established, proceed directly to the **Equipment Removal Area.**	*	*	*		

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
Holding Area					
NOTE!! **EOD Personnel wearing Level A Suits will proceed directly to Station 3 - Overboot Removal Area. Decontaminate boots in foot trays provided along the way.**				*	
The Holding Area is designed to allow shade for personnel, turn in Classified material and ask any questions prior to processing. Informational signs may be developed for personnel to read while waiting.					
1. Attendant will obtain classified material. Place in an airtight bag and label it with the individuals Name, Rank, SSAN. The individual will receive the classified before the leaving the CCA to the TFA.					
The following information could be posted within this area.					
1. Carefully read the notices posted on the information boards prior to beginning your processing.					
2. Remove your individual protective equipment (IPE) in the order specified by the posted instructions.					
Important!! **Turn in all Classified Material. It will be returned to you before leaving the CCA.**					
External Equipment Removal Area					
WARNING!! **Take great care when doffing items. Do not remove mask or any chemical protective clothing. Contact hazard transfer to exposed skin and/or the respiratory tract can lead to sickness or death.**					
1. Undo the Velcro attachments on your hood underarm straps.	*				
2. Re-attach underarm straps over the shoulder.	*				
3. Remove all external items other than protective mask and overgarment and place on racks. These items include Helmet, Vest (aircrew), Web Gear, Mask Carrier, Flak Vest, Cold/Wet Weather Gear and other non-essential items. **IMPORTANT: Do not let previously deconned equipment touch the ground.**	*	*	*		
4. Empty all overgarment pockets and place items in hampers.	*	*	*		
5. Decontaminate and rinse gloves in tubs provided.	*	*	*		
6. Proceed to **Station 2 – Mask Wipe and Hood Removal Area.** Decontaminate boots in foot trays provided along the way.	*	*	*		

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
STATION 2					
Mask Wipe and Hood Removal Area					*
WARNING!! **Using two fingers apply pressure to the mask front voicemitter and to the beard of the JFIRE to hold the mask firmly in place and prevent loss of mask seal integrity.**					
1. Individual will:					
• Face the attendant and apply pressure to the front voicemitter.	*	*	*		
• Firefighters will hold mask in place with 2 fingers on the beard/breathing valve.			*		
2. Attendant will:					
• Loosen processee's hood drawstring.	*				
• Wipe down eyelens outserts and around the filter element using the 5% chlorine solution.	*	*			
• Wipe all exposed areas of the interspiro CW mask (lens and canister) with the 5% chlorine solution.			*		
• Repeat wipe down procedure with water.	*	*	*		
• Pull hood over processee's head and cut temple straps.	*				
• Pull the hood off the mask and drop it in the hamper.	*				
3. Attendant and individual will:					
• Decontaminate and rinse gloves in tubs provided.	*	*	*		
4. Individual will:					
• Proceed to **Station 3 – Overboot Removal Area.**	*	*	*		
IMPORTANT! **JFIRE personnel proceed directly to Station 3 - Protective Overgarment Removal Area.**			*		

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
STATION 3					
Overboot Removal Area					
IMPORTANT!! **While waiting in line, read all instructions for this station and watch the other processing teams in front of you.**					
1. Proceed to the first available bench as a buddy team, sit on opposite ends of the bench with boots resting on the "dirty" side of the bench.	*	*		*	
2. Undo both of your Velcro pant leg fasteners and unzip/untie leg fasteners completely.	*	*			
3. Undo all overboot fasteners.	*	*			
4. The outer pant leg of the Level-A suit is pulled up to fully expose the bunker boots.				*	
5. One individual will lift their leg closest to the center of the bench and rests it on the bench as your buddy removes the overboot/bunker boot and drops it into the hamper. Once the overboot/bunker boot is removed place your foot on the clean side of the bench as you now straddle the bench.	*	*		*	
6. The other individual will complete the same procedures until both processees are straddling the bench.	*	*		*	
7. Utilizing the "Buddy" system the remaining boot is processed in the same manner.	*	*		*	
8. Wipe down bench with 5% chlorine solution.	*	*		*	
9. Decontaminate and rinse gloves in tubs provided and proceed to the **Protective Overgarment Removal Area.**	*	*		*	
Protective Overgarment Removal Area					
Important!! **Working as a buddy team, Do not sit, squat, kneel or touch the inside of the overgarment, bunker pants or Level A Suit as you remove them. One processee performs the procedure followed by his/her buddy.**					

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
Battle Dress Overgarment (BDO)					
BDO Trouser Removal					
1. Buddy will: • Unsnap rear snaps, untie waist cord, loosen side pull straps and unfasten front fly closure.	*				
2. Individual will: • Turn and face away from their buddy.	*				
3. Buddy will: • Lower the individual's pants to their knees. **Do not turn pants inside out as you remove them**	*				
4. Individual will: • Steady his/herself by holding on to the rack and extend their foot back one at a time.	*				
5. Buddy will: • Remove the individual's trousers and place them into the containment hamper. **Important:** Stand to the side of your buddy as you remove the pants. This prevents the pants rubbing against you.	*				
6. Individual and buddy will: • Decontaminate and rinse gloves in tubs provided.	*				
7. Repeat procedures for doffing buddy.	*				
BDO Jacket Removal					
1. Buddy will: • Loosen zippers, velcro fasteners, and untie the drawstring on the front of the jacket.	*				
• Undo Velcro attachment points on each sleeve cuff.	*				
2. Individual will: • Turn and face away from your buddy, straighten and hold fingers together in order to keep gloves on and hold arms behind you.	*				

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
3. Buddy will:					
• Pull the jacket down and away from the individual's shoulders helping them remove their arms from the sleeves one at a time. - Elastic sleeve cuffs – Jacket will come off inside out. - Velcro sleeves – Jacket will come off right-side out.	*				
• Place jacket in the containment hamper.	*				
4. Individual and buddy will:					
• Decontaminate and rinse gloves in tubs provided.	*				
5. Repeat the jacket removal steps for the doffing buddy and proceed to	*				
Joint Firefighter Integrated Response Ensemble (J-FIRE)					
Bunker pants and CPO trouser removal					
1. Individual will:					
• Push bunker pants down to the top of the bunker boots.			*		
• Reach through the CPO jacket and "pinch" hasp to release suspenders.			*		
2. Buddy will:					
• Unsnap and untie the waist elastic coat retention cord.			*		
• Unfasten the waistband hook and pile fastener tapes and front fly closures.			*		
3. Individual will:					
• Turn and face away from buddy.			*		
• Steady yourself by holding on to the rack. Extend your foot back one at a time.			*		
4. Buddy will:					
• Remove the bunker trouser, boot and CPO trouser at the same time and place them into the containment hamper.			*		
• Place an uncontaminated disposable plastic boot or sock on the foot before touching the ground.			*		
• Repeat the process for the other leg.			*		
5. Individual will:					
• Repeat this process for your buddy.			*		

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
6. Individual and buddy will:					
• Decontaminate and rinse gloves in tubs provided.			*		
			*		
Firefighters will remove CPO Jacket according to the CPO removal procedures below.					
Chemical Protective Overgarment (CPO)					
CPO Trouser Removal					
1. Individual will:					
• Reach through your jacket and "pinch" hasp to release suspenders.		*			
2. Buddy will:					
• Unsnap and untie the waist elastic coat retention cord.		*			
• Unfasten the waistband hook and pile fastener tapes and front fly closures.		*			
3. Individual will:					
• Turn and face away from their buddy.		*			
4. Buddy will:					
• Lower the individual's pants to their knees.		*			
IMPORTANT!! **Do not turn pants inside out as you remove them**					
5. Individual will:					
• Steady themselves by holding on to the rack. Extend your foot back one at a time.		*			
6. Buddy will:					
• Remove the individual's trousers and place them into the containment hamper.		*			
7. Individual and buddy will:					
• Decontaminate and rinse gloves in tubs provided.		*			
8. Repeat procedures for doffing buddy.		*			

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
CPO Jacket Removal					
1. Buddy will disconnect the canister and hose assembly and secure it around breathing valve filter away from the CPO jacket.			*		
2. Your buddy will loosen zippers, and hook and pile tape on the front of the jacket, the jacket sleeves and the hood.		*	*		
3. Turn and face your buddy; Lean slightly forward with chin out and head up.		*	*		
4. Your buddy will stretch CPO hood out and pull back and roll back (inside out). away from your head.		*	*		
5. Turn and face away from your buddy, straighten and hold fingers together and hold arms behind you.		*	*		
6. Your buddy will pull the jacket down and away from your shoulders helping the processee remove their arms from the sleeves one at a time. **Note: Your arms should come out of the coat without turning the sleeves inside out.**		*	*		
7. Place jacket in the containment hamper.		*	*		
8. Individual and buddy will: • Decontaminate and rinse gloves in tubs provided.		*	*		
9. Repeat all above procedures for doffing buddy.		*	*		
10. Proceed to **Station 4 - Glove Removal Area.**		*	*		
EOD - HAZMAT Level A Suit **Important: Each of the following steps requires the assistance of your buddy.**					
1. Unfasten the belt inside your suit and don your chemical protective rubber gloves, which is also stored inside the suit.				*	
2. Open the velcro closure and zipper.				*	
3. Pull the suit down to knee level ensuring the outside of the suit does not contact the uniform or skin in the process.				*	
4. Remove the suit one leg at a time by lifting your leg backward and pulling it free from the leg and foot. Place a plastic sock or bootie on the exposed foot before it touches the ground.				*	
				*	

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
Note: Once the suit is unzipped, you may switch the CW interspiro mask from bottled air to ambient air.				*	
5. Place the suit in the hamper.				*	
6. Processee and buddy will decontaminate and rinse gloves in tubs provided and proceed to **Station 4 - Glove Removal Area.**				*	
STATION 4					
Glove Removal Area					
WARNING!! **Avoid contact with the outside of your rubber glove with your unprotected hands**					
1. Work both rubber gloves off at the same time and drop into hamper.	*	*		*	
2. Work the Fire/CW protective gloves at the same time until they are halfway off and drop into hamper.			*		
3. Proceed to the **Mask Monitoring/Removal Area.**	*	*	*	*	
Mask Monitoring Removal Area					
1. Individual will: • Face the attendant, spread legs apart and hold arms out to your side with your palms up.	*	*	*	*	**1 Per Monitoring Line**
2. Attendant Will: • Monitor individual using the CAM. (See procedures below)	*	*	*	*	
3. If cam bar readings are **less** than the CAM Monitoring Chart, the individual will remove their mask according to the Mask Removal procedures below.	*	*	*	*	
4. If cam bar readings are equal or greater to what is listed in the CAM Monitoring Chart, the individual will: - Don clean gloves and proceed to the **Uniform/Undergarment Removal Area.**	*	*	*	*	

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
CAM Monitoring Procedures					
1. Monitor the front and rear of the processee using an **X** pattern (if desired) and also monitor the outline of the body.	*	*	*	*	
2. Have the processee face away and extend their foot back one at a time and monitor the bottom of each foot.	*	*	*	*	
3. During monitoring pay special attention to the palms, wrists, ankles, neck, and bottom of feet.	*	*	*	*	
Mask Removal Procedures					
IMPORTANT!! **The attendant will document the individuals name and SSAN on a mask ID tag before the individual removes the mask**					
1. Attendant will:					
• Ask the individual their name and SSAN and write it on the mask tag.	*	*	*	*	
• Bring nomex hood forward so it rest over the mask.			*		
2. Individual will:					
• Using both hands, grasp lower headharness straps, take three deep breaths, holding the last one.	*	*	*	*	
3. Pull mask out and away from face, remove mask and the self contained breathing apparatus (if applicable) and place on table.	*	*	*	*	
4. Attendant will:					
• Attach the mask tag to the headharness buckle and place the mask in the container.					
5. Individual will:					
• Continue holding breath, obtain classified material (if applicable) and with eyes open **walk** to the Toxic Free Area.	*	*	*	*	
Uniform/Undergarment Removal Area					
Caution!! **Bending too far forward in the mask may cause the seal of the mask to leak on some individuals. Use the boot step (CAPS only) to elevate your foot when untying the combat bootlaces.**					

CCA Processing Steps	BDO	CPO	JFIRE	EOD Level A	Attendant
1. Place foot on boot step (CAPS only) and untie combat boots.	*	*	*	*	
2. Hold onto the rack for balance and remove combat boots, or disposable booties. You may use the boot remover (CAPS only) if you desire.	*	*	*	*	
3. Remove your BDU shirt and place it into the hamper.	*	*	*	*	
4. Remove your BDU pants and place it into the hamper.	*	*	*	*	
5. Return to the Mask Monitoring/Removal Area.	*	*	*	*	
EMERGENCY CCA PROCEDURES					
If cam bar readings are the same upon remonitoring, take the following emergency steps:					
1. Immediately stop CCA operations.					
2. Monitor surrounding area within the VHA to verify levels and look for any potential hot spots.					
3. If hot spots are found decontaminate by using decontamination kits, washing down area with 5% chlorine solution, sealing, removing, and covering.					
4. Once levels are below the ones listed in the CAM Monitoring Chart, continue CCA operations					
5. If levels have not changed - Check serviceability of CAMs. Replace as necessary and remonitor area. - Verify wind direction. Ensure you are still downwind or crosswind. If not, the CCA must be relocated to an upwind or crosswind location.					

Add Table A2.11. after Table A2.10

★Table A2.11. CAM Monitoring Risk Matrix Chart (CCA Line)

CAM SCALE	CAM BAR READING
H	3 or more bars Do Not Remove Protective Mask
G	1 or more bars Do Not Remove Protective Mask

Add Table A2.12. after Table A2.11

★Table A2.12. CAM Monitoring Risk Matrix Chart (Refurbishment and Aeration Area)

CAM SCALE	CAM BAR READING
H	1 or more bars Continue refurbishment or aeration until 0 bars
G	1 or more bars Continue refurbishment or aeration until 0 bars

★Add Table A2.13. after Table A2.12

★Table A2.13. Mission Critical Equipment Refurbishment Procedures.

Refurbishment Procedures
BDO
Preparing the BDOs for aeration. 1. Inspect for serviceability. 2. Brush off excess decontaminant. 3. Check suits for signs of liquid contamination. 4. Separate vapor contaminated suits from liquid contaminated suits. 5. Remove M9 tape. 6. Sort the BDOs by size to ease future identification. 7. Tag each overgarment with the date and start time of aeration. 8. Hang BDOs for aeration. See A2.8.2 for additional guidance on overgarment aeration. 9. Monitor with a Chemical Agent Monitor (CAM) prior to removing them from aeration. See Table A2.12 for monitoring guidelines.
MCU-2A/P and M-45 Mask Refurbishment Procedures See Figure A2.1 for example of station layout.
Station 1 - Mask Decontamination – 1 Attendant
1. Remove and discard the filter canister. 2. Submerge the mask in a 5% chlorine solution for 30 seconds.

Refurbishment Procedures

Station 2 – Mask Aeration –2 Attendants (Recommended)

Preparing Mask for Aeration

1. Remove the head-harness from the mask and submerge in water for approximately two minutes. **Note:** Remove the head-harnesses by cutting the straps immediately below the metal tab and discard the headharness.

2. After the two-minute rinse, remove the eyelens cover and wipe the cover with a dry towelette.

3. Hang mask for Aeration.

Station 3 – Mask Re-Service – 1 Attendant This Station attendant is responsible for removing the mask from aeration and preparing them for re-issue.

Prior to removing the mask from aeration the attendant will monitor the inside and outside of the mask with a Chemical Agent Monitor (CAM). See Table A2.12 for monitoring guidelines.

Preparing the mask for re-issue

1. Refit the mask with an eye lens cover and place a new head-harness inside the mask. The processee is responsible for replacing the head-harness.

2. Conduct a visual inspection and replace parts as needed.

3. Transfer refurbished mask to the Vapor Hazard Area.

Fire and EOD Specialized Equipment Refurbishment Procedures

Station 1 – Interspiro CW Mask Refurbishment

Note: Fire Department and EOD personnel will refurbishment the Interspiro CW Mask.

1. Disassemble the mask by removing the Nomex hood, C2 canister, hose cover, beard, voice cone and breathing valve assembly.

2. Seal the canister hose and discard the canister.

3. Hang up the Nomex hood, beard, and hose cover to aerate. Check with the CAM before reuse. See Table A2.12 for monitoring guidelines

4. Wipe the breathing valve assembly with 5% chlorine solution and rinse with water.

5. Submerge the disassembled mask in a 5% chlorine solution for 30 seconds and then rinse and agitate in a water solution for 30 seconds.

6. Hang the mask for aeration. See Table A2.12 for monitoring guidelines

7. Monitor the inside and outside of the mask with a Chemical Agent Monitor (CAM) prior to removing the mask from aeration. See Table A2.12 for monitoring guidelines.

8. Reassemble the mask and transfer to the Vapor Hazard Area.

Station 2 – Bunker Boots – 1 Attendant

1. Set boots into 4 inches of 5% chlorine solution for approximately 30 seconds. Scrub the bottom of the boots using a stiff brush. After wiping the sides of the boot with the chlorine solution, place the boot on the rinsing table. **Note:** Try and keep the inside of the boot as dry as possible.

2. Rinse the boots in the same manner as described in Step 1.

3. Hang boots upside down to aerate.

4. Monitor the boots with a Chemical Agent Monitor (CAM) prior to removing them from aeration. See Table A2.12 for monitoring guidelines.

5. Transport the boots to the VHA.

Station 3 - Firefighter Proximity Suit – 1 Attendant

1. Separate the exterior aluminized shell (silvers) from the interior bunker liners.

2. Separate the bunker suspenders from the proximity trousers.

3. Hang the bunker liners and suspenders for aeration.

4. Submerge the bunker silvers in a 5% chlorine solution for 30 seconds.

5. Rinse by submerging them in a water solution for 30 seconds.

6. Hang the bunker silvers for aeration.

7. Monitor the bunker silvers with a chemical agent monitor prior to removing them from aeration. See Table A2.12 for monitoring guidelines.

8. Monitor the bunker liners and suspenders with a chemical agent monitor prior to removing them from the aeration rack. See Table A2.12 for monitoring guidelines.

9. Reassemble the bunker liners, silvers, and suspenders before transporting to the VHA.

Station 4 – Modified Structural ARFF Helmet – 1 Attendant

1. Submerge the ARFF helmet with aluminized dome cover and shroud (attachments) in the 5% chlorine solution for approximately 30 seconds.

2. Rinse the helmet and attachments with water in the same manner as step 1.

3. Place the helmet and attachments into aeration.

4. Monitor the helmet with attachments with a CAM prior to removing them from aeration before transporting to the VHA.

Station 5 – Fire Fighter/CW Protective Gloves – 1 Attendant

1. Submerge the gloves in the 5% chlorine solution for approximately 30 seconds.

2. Rinse the gloves by submerging and agitating in water for approximately 30 seconds.

3. Place the gloves into aeration.

4. Monitor the gloves with a CAM prior to removing them from aeration before transporting to the VHA. See Table A2.12 for monitoring guidelines

★A2.12. Determining how many CCA's your base should setup:

★A2.12.2.1. 5. Based on a processing rate of 70 people per hour, your installation would have to establish 6 ground crew CCA's. See A2.1 for CCA layout.

★A2.12.2.2.7. Based on a processing rate of 70 people per hour, your installation would have to establish 2 ground crew CCA's.